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| APPLICATION NO.             | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------|-------------|----------------------|---------------------|------------------|
| 10/538,900                  | 06/14/2005  | Scott Thomas Milner  | 2003B133A           | 6056             |
| 23455                       | 7590        | 06/30/2006           | EXAMINER            |                  |
| EXXONMOBIL CHEMICAL COMPANY |             |                      | RABAGO, ROBERTO     |                  |
| 5200 BAYWAY DRIVE           |             |                      | ART UNIT            |                  |
| P.O. BOX 2149               |             |                      | PAPER NUMBER        |                  |
| BAYTOWN, TX 77522-2149      |             |                      | 1713                |                  |

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/538,900

Applicant(s)

MILNER ET AL.

Examiner

Roberto Rábago

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-53 and 55-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 and 55-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/14/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claims 12 and 13 are indefinite because a halogenated hydrocarbon is not a hydrocarbon as required by the parent claim. The term "hydrocarbon" means a compound consisting of carbon atoms and hydrogen atoms. If the scope of claim 11 intends that the additional diluent may be hydrocarbon or halogenated hydrocarbon, then the claim should be properly phrased to clearly reflect such meaning.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 11, 33, 35-43, 49-50, 52, 53, and 55-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Halasa (US 4,248,988).

The reference discloses in Example XIV(d) methods of polymerizing isoprene in the presence of a cobalt complex, triisobutyl aluminum, toluene and 2,3-difluorobutane, with molecular weights between 10,000 and 100,000 (see also col. 2, lines 18-20), including all claimed limitations.

5. Claims 52 and 55-58 are rejected under 35 U.S.C. 102(b) as being anticipated by WO00/04061.

While the type of diluent used in the process of claim 1 is not disclosed in the reference, the rejected claims are drawn to the ultimate composition or polymer product, not its method of preparation. Accordingly, given the breadth of polymers made by the recited methods and the lack of any basis to find that polymers throughout such breadth would be substantively unique on the basis of their method of manufacture, the reference polymers are seen to fall within the scope of the claims (see Examples 1-4).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 26, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halasa (US 4,248,988).

The parent claims are discussed with respect to this reference above. One of ordinary skill in the art would be motivated to select the specified Lewis acids because they have been recommended in the reference (col. 4, line 67 through col. 5, line 26).

8. Claims 1-17, 26, 27, 33-53 and 55-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clough et al. (US 5,780,565).

The reference discloses slurry polymerization comprising HFC compounds as solvents, in optional admixture with other solvents or gases (abstract; col. 4, lines 27-41; col. 9, lines 50-59). Lewis acid catalysts (col. 8, lines 15-50), cocatalysts (col. 13, lines 1-17), a variety of monomers (col. 5, lines 27-57), and reactors (col. 3, lines 47-63) are all recommended as useful process embodiments. One of ordinary skill in the art would be motivated to use the recommended methods of the reference because they have been disclosed as effective methods of polymerization.

9. Claims 1-5, 8-10, 14-18, 26, 27, 35, 37, 49, 50, 52, 53, 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falchi et al. (US 5,728,783).

The reference discloses methods of olefin polymerization comprising Lewis acids (col.4, line 55 through col. 6, line 44) in hydrofluorocarbons (col. 5, lines 7-13). One of ordinary skill in the art would be motivated to use the recommended methods of the reference because they have been disclosed as effective methods of polymerization.

***Double Patenting***

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

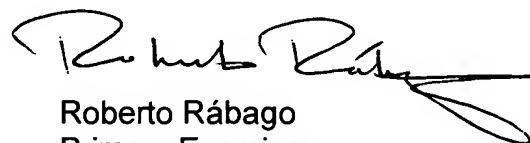
11. Claims 1-53 and 55 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-60 of copending Application No. 10/539,013, and claims 1-69 of copending Application No. 10/538,984, and claims 1-57 of copending Application No. 10/539,015. Although the conflicting claims are not identical, they are not patentably distinct from each other because, in each case, the instant claims are more broad than the copending claims; therefore, if the copending claims were prior art, they would form the basis for rejection under 35 USC 102.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Roberto Rábago  
Primary Examiner  
Art Unit 1713